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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/565,366	01/23/2006	Rolf Hartung	7601/84486	5556

66991 7590 05/19/2010

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EXAMINER	
YOUNG, SHAWQUIA	

ART UNIT	PAPER NUMBER
1626	

MAIL DATE	DELIVERY MODE
05/19/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/565,366	HARTUNG ET AL.	
	Examiner	Art Unit	
	SHAWQUIA YOUNG	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *24 April 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *28-47* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *28-47* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claims 28-47 are currently pending in the instant application. Applicants have amended claims 28, 41 and 46 in the amendment, filed on April 24, 2010. The Examiner has **withdrawn the finality** of the previous Office Action December 8, 2009 because of the presence of prior art and the claims 28-47 will be rejected under 35 USC 103 as being unpatentable over Minnaard, et al. in view of Schuda, et al. The 103 rejection will be discussed in more detail below.

I. *Response to Arguments/Remarks*

Applicants' amendment, filed on April 24, 2010 have overcome the rejection of claims 28-47 under 35 USC 112, first paragraph as containing new matter; the rejection of claim 46 under 35 USC 112, second paragraph as being indefinite and the objection to the specification. The above rejections and objection have been withdrawn.

II. *Rejection(s)*

35 USC § 103 - OBVIOUSNESS REJECTION

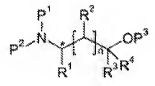
The following is a quotation of 35 U.S.C. § 103(a) that forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Graham v. John Deere Co. set forth the factual inquiries necessary to determine obviousness under 35 U.S.C. §103(a). *See Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966). Specifically, the analysis must employ the following factual inquiries:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 28-47 are rejected under 35 U.S.C. § 103(a) as being unpatentable over *Minnaard,et al.* (Synthetic communications, 29, 1999) in view of *Schuda, et al.* (J. Org. Chem. 1988, 53). Applicants claim a process for the hydrogenation of a compound, comprising hydrogenating a C_6-C_{18} aromatic substituted amino acid or C_6-C_{18} aromatic substituted amino alcohol in the presence of a platinum-rhodium mixed catalyst, wherein said amino acid or amino alcohol is of the formula



wherein all variables are as defined in claim 28 and wherein said process produces a yield of greater than 94% after a reaction time of about 6 to 8 hours. Claim 41 is drawn to a process for the hydrogenation of a compound selected from the group consisting of : L-phenylalanine, D-phenylalanine, L-phenylglycine, D-

phenylglycine, L-tyrosine or D-tyrosine, comprising hydrogenating said compound in the presence of a platinum-rhodium mixed catalyst wherein said process produces a yield of greater than 94% after a reaction time of about 6 to 8 hours.

The Scope and Content of the Prior Art (MPEP §2141.01)

Minnaard, et al. teaches the synthesis of enantiomerically pure cyclohexylglycine by hydrogenating phenylglycine using a rhodium catalyst and rhodium catalyst on support. The reaction resulted in a high yield and no racemization occurred. The prior art reference also teaches the use of palladium, platinum or ruthenium as catalysts in the synthesis.

Schuda, et al. teaches the hydrogenation of L-phenylalanine by using a platinum catalyst (i.e. PtO_2) and the reaction result in a high yield and does not undergo racemization.

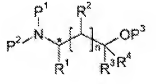
The Difference Between the Prior Art and the Claims (MPEP §2141.02)

The difference between the prior art of *Minnard, et al.* in view of *Schuda, et al.* and the instant invention is that the instant invention uses a mixed platinum-rhodium catalyst whereas the prior art teaches the use of platinum and rhodium separately.

Prima Facie Obviousness-The Rational and Motivation (MPEP §2142-2413)

Applicants are claiming a process for the hydrogenation of a compound, comprising hydrogenating a C_6-C_{18} aromatic substituted amino acid or C_6-C_{18} aromatic

substituted amino alcohol in the presence of a platinum-rhodium mixed catalyst, wherein said amino acid or amino alcohol is of the formula



wherein all variables are as defined in claim 28. Claim 41 is drawn to a process for the hydrogenation of a compound selected from the group consisting of : L-phenylalanine, D-phenylalanine, L-phenylglycine, D-phenylglycine, L-tyrosine or D-tyrosine, comprising hydrogenating said compound in the presence of a platinum-rhodium mixed catalyst. The prior art teaches a similar process wherein either a platinum catalyst or a rhodium catalyst is used and both catalyst are successful in the hydrogenation reaction.

In In re Crockett,et al., 126 USPQ 186, it was well established that when the prior art teaches the use of two catalysts, the idea of combining them would flow logically from prior art and claim to joint use is not patentable. Also, it was well established the selection of reaction conditions (i.e., temperature, concentration, reaction times, etc.) is more optimization by mere modification of routine experimentation and within one skilled in the art. So Applicants modifying the reaction time to about 6 to 8 hours vs. for example, 18 hours as seen in the prior art, is considered mere modification of routine experimentation and within one skilled in the art. For example, it is obvious to combine rhodium and platinum catalysts in a hydrogenation process of aryl substituted amino acids when the art teaches the use of each catalyst separately in the same type of

reaction with reasonable expectation of success. Therefore, it would have been prima facie obvious to one having ordinary skill in the art at the time the invention was made to use a mixed platinum-rhodium catalyst in the hydrogenation of a compound according to claim 28 or 41 based on the teachings in the prior art. A strong prima facie obviousness has been established. Applicants are suggested to provide a showing of unexpected results in the form of a declaration to overcome the 103 rejection.

III. *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawquia Young whose telephone number is 571-272-9043. The examiner can normally be reached on 7:00 AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph McKane can be reached on 571-272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Shawquia Young/

Examiner, Art Unit 1626